



Security Forces Distributed Mission Training (SecForDMT)

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MRA



ABD Flight

ABD Flight Leadership Element



Flight Leader (M16)



Flight Sergeant (M16)



3 Radio/Telephone Operators (RTOs) (M16)

ABD Squad



Squad Leader (M16)



Fire Team Ldr (M16)
Machine Gunner (M249)
Rifleman (M16)
Rifleman/Grenadier (M203)



Fire Team Leader (M16)
Machine Gunner (M60)
Assistant Gunner (M16)
Rifleman/Grenadier (M203)



Fire Team Leader (M16)
Machine Gunner (M249)
Rifleman (M16)
Rifleman/Grenadier (M203)

SecForDMT Concept

LAN

DIS/HLA

CGFs In Virtual World



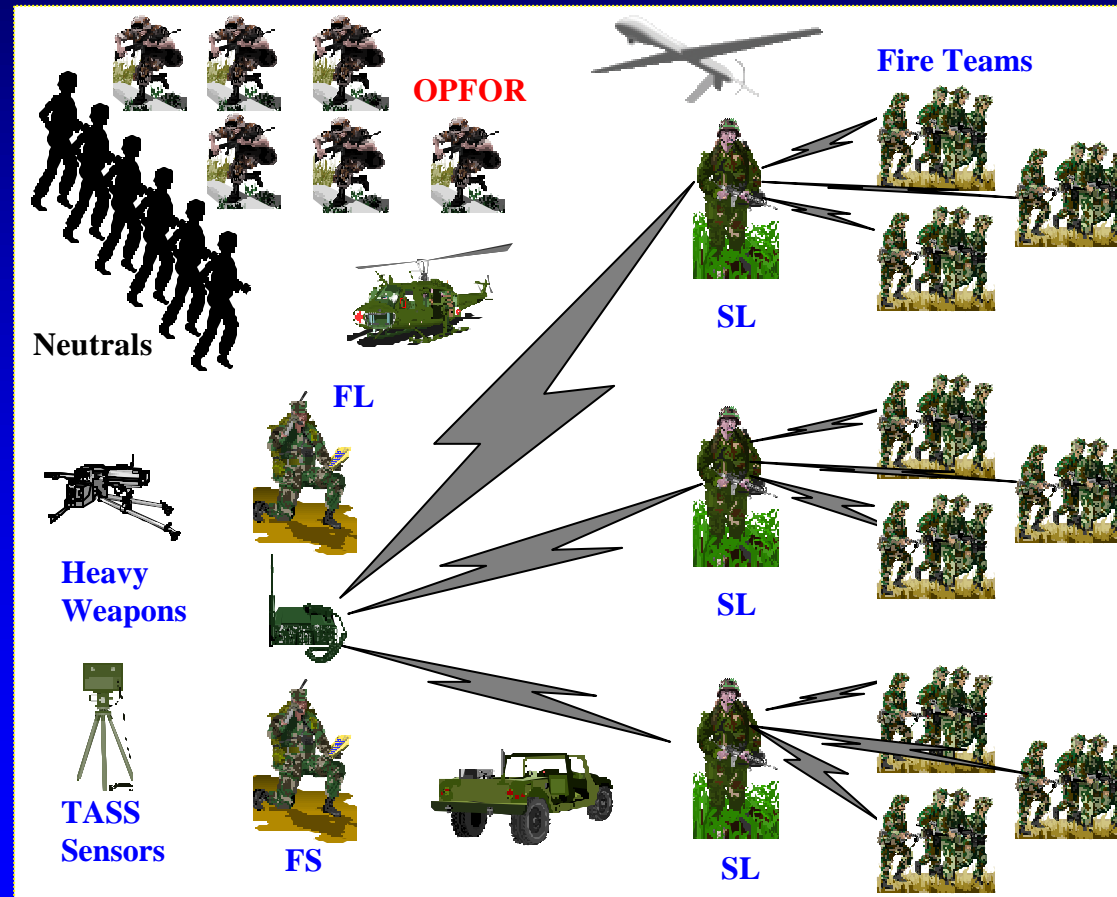
Instructor



Flight Leader Trainee



Flight Sergeant Trainee



Squad Leader Trainee



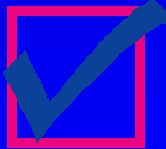
Squad Leader Trainee



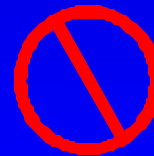
Squad Leader Trainee

Video Game Analogy

SecForDMT Trains Decision-Makers, not Shooters



Real Time Strategy



First Person Shooter

Requirements

- **NEED ID # I09, IMPROVE FORCE PROTECTION CAPABILITY:** Ref.: Air Force Modernization Planning, Agile Combat Support Mission Area Plan, FY1998
- **SOLUTION ID # ACSSF08, FORCE PROTECTION TRAINING:** “Provides training for deployable personnel in anti-terrorism, unique force protection systems, strategies, and simulation /modeling”. (Ref: Combat Air Forces Agile Combat Support Mission Area Plan, FY2002)

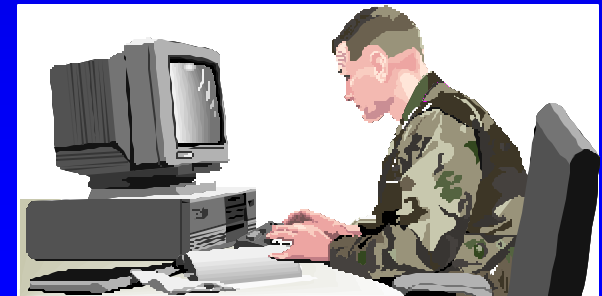
Goal

- **Develop, demonstrate, and evaluate a distributed simulation capability to support training in decisionmaking and team coordination**



Technology Development Objectives

- Easy to Use
 - Usable by trainees to control Computer Generated Forces
 - Usable by instructors to develop/run exercises
- Affordable
 - Standard PCs
 - No on-site support technician
- Valid
 - No omniscient views



SecForDMT Mission

- Provide affordable distributed team training from home stations several time per year
- Provide distributed initial team training for expeditionary forces in preparation for deployment training at RTCs
- Polish decision-making and communication skills in a joint, multinational environment including NGOs

The Warfighter Training Research Division

Mission

Develop, demonstrate, evaluate, and transition training technologies and methods to train warfighters to win.



Focus Technology areas

**Warfighter Training Effectiveness Behavioral
Research and Development**

**Distributed Mission Training Technology Engineering
Development**

**Night Vision Device Aircrew Training Research and
Development**



NEXT

PREV

SEL

Zone

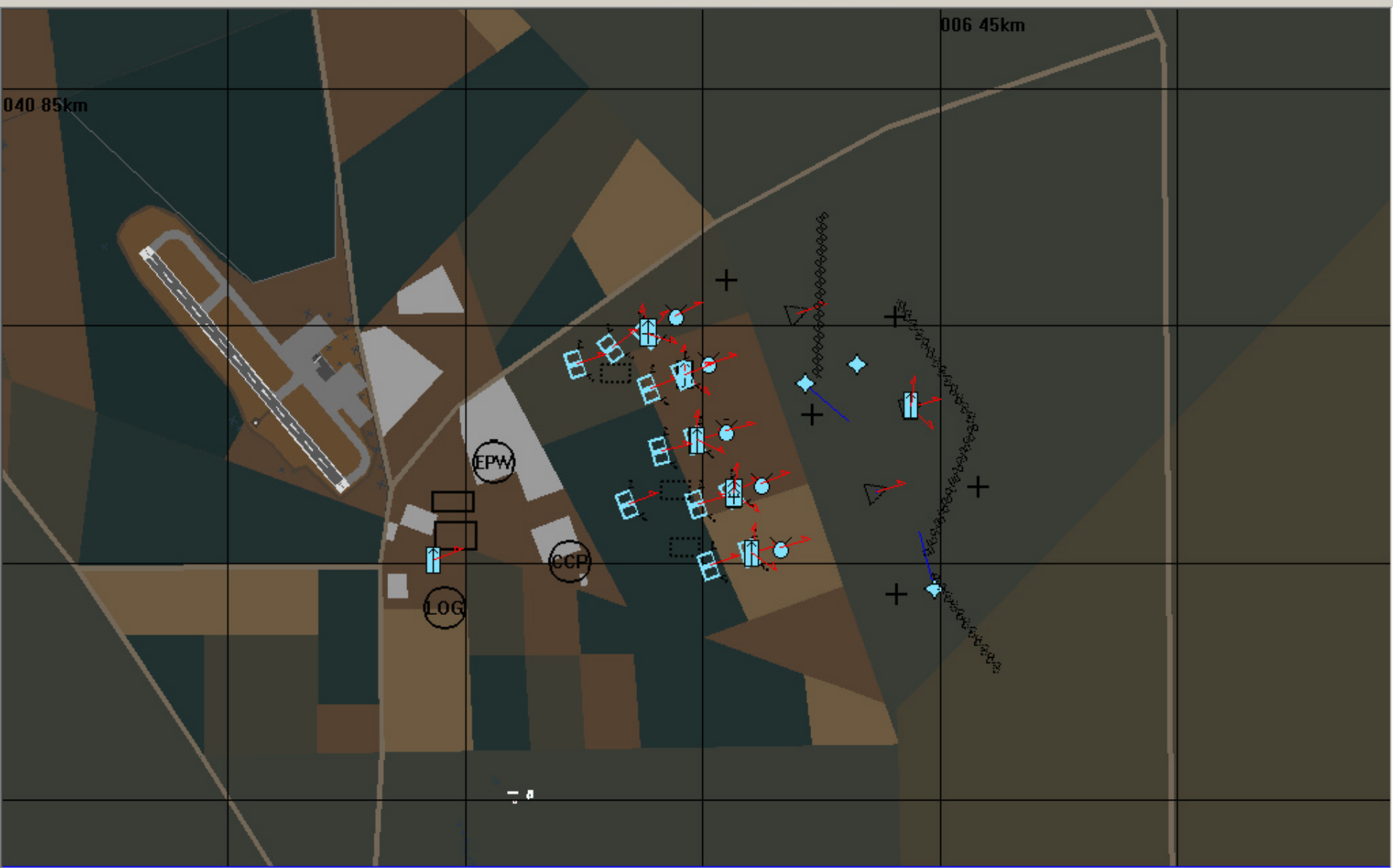
10S

MGRS Coordinates

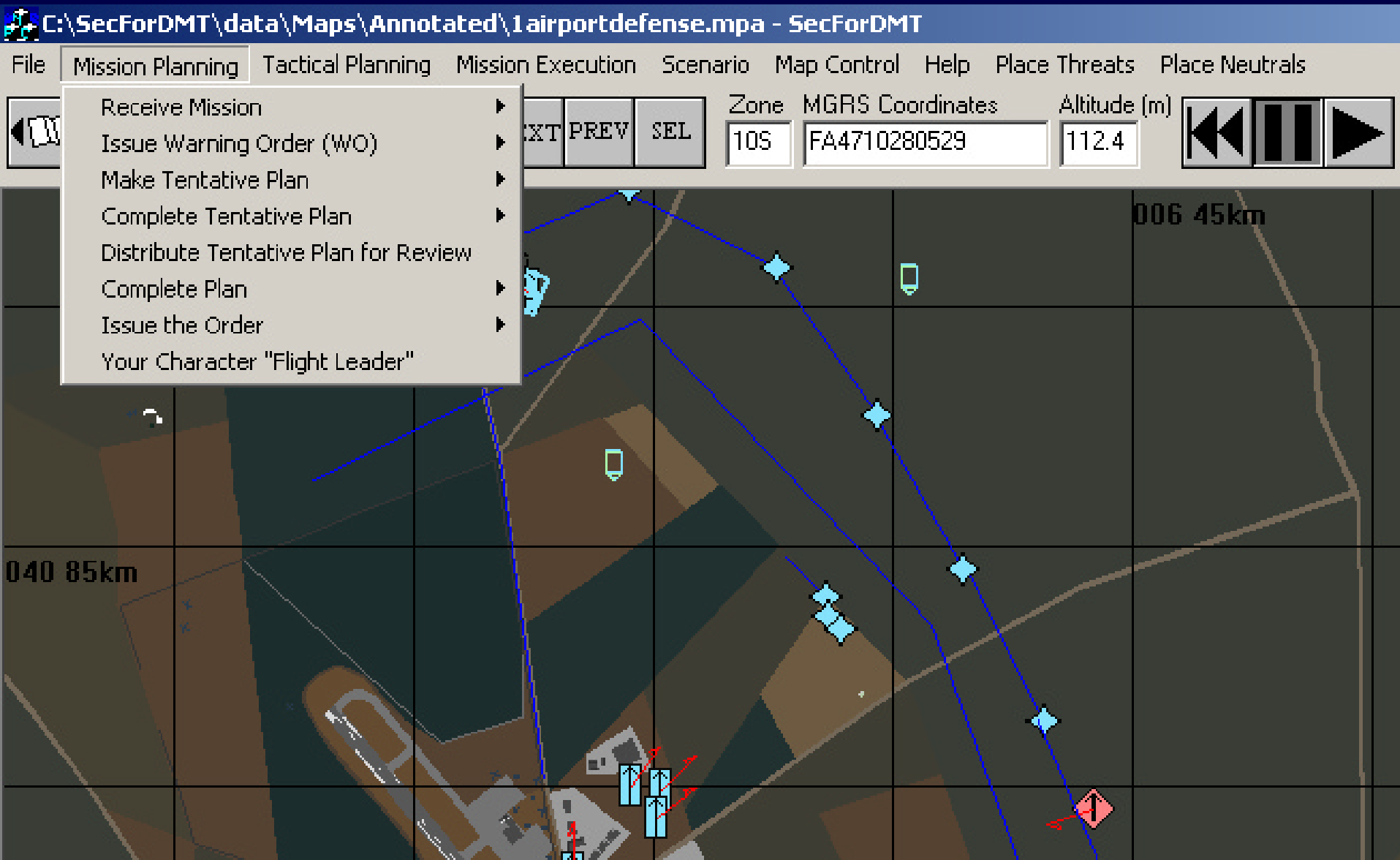
FA4341583618

Altitude (m)

71.47



Menus Per FM 7-8



Zone MGRS Coordinates Altitude (m)

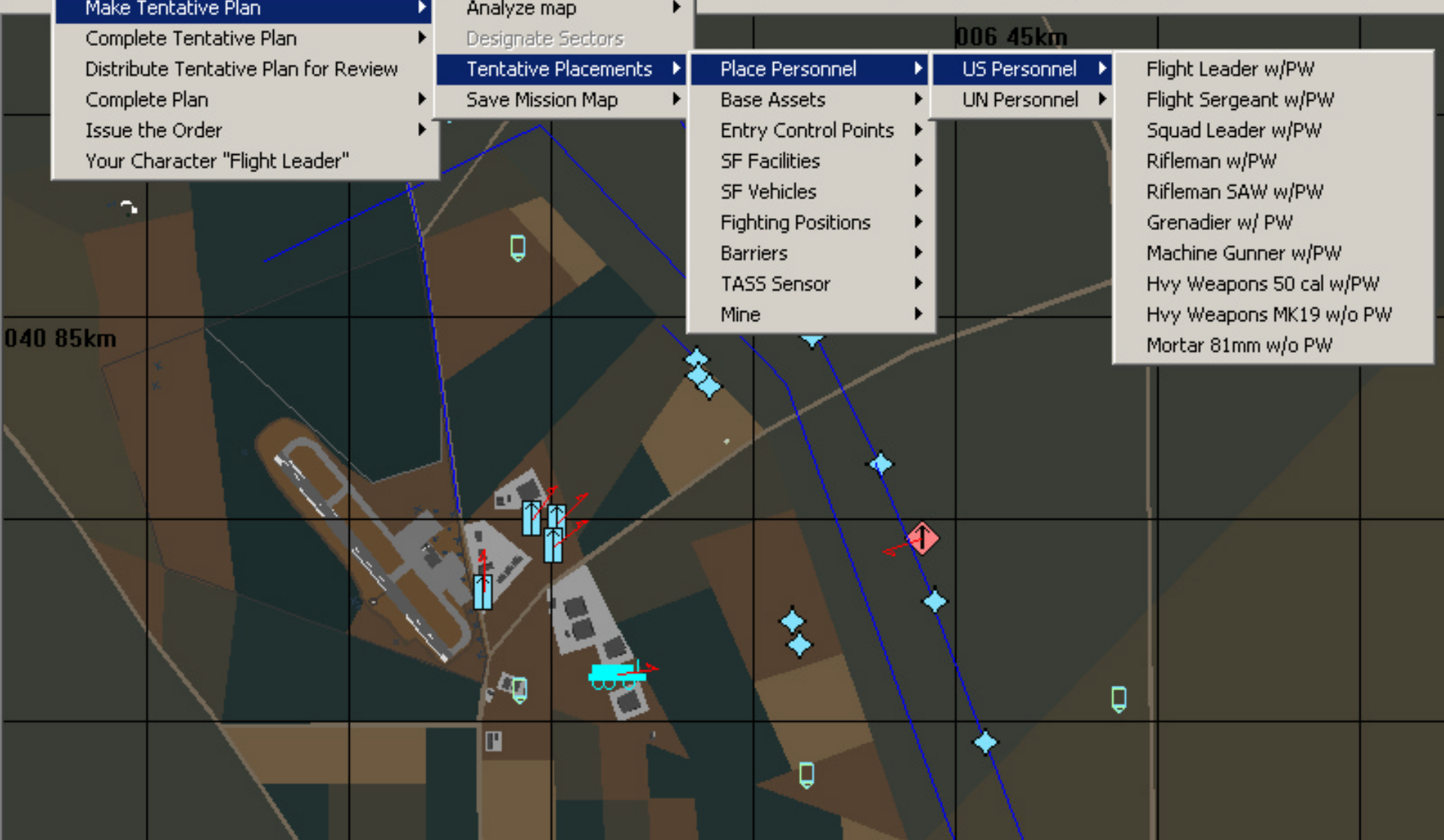
- Receive Mission
- Issue Warning Order (WO)
- Make Tentative Plan**
- Complete Tentative Plan
- Distribute Tentative Plan for Review
- Complete Plan
- Issue the Order
- Your Character "Flight Leader"

- Analyze map
- Designate Sectors
- Tentative Placements**
- Save Mission Map

- Place Personnel**
- Base Assets
- Entry Control Points
- SF Facilities
- SF Vehicles
- Fighting Positions
- Barriers
- TASS Sensor
- Mine

- US Personnel**
- UN Personnel

- Flight Leader w/PW
- Flight Sergeant w/PW
- Squad Leader w/PW
- Rifleman w/PW
- Rifleman SAW w/PW
- Grenadier w/ PW
- Machine Gunner w/PW
- Hvy Weapons 50 cal w/PW
- Hvy Weapons MK19 w/o PW
- Mortar 81mm w/o PW



Recieve Warning Order

Receive Tentative Plan

Reconnoiter

Receive OPORD

Finalize Placements

Issue Equipment To Personnel

Issue Radios/Call Signs

Issue Telephones

Your Character "Squad Leader"

EL

Zone
10S

MGRS Coordinates
FA4482285657

Altitude (m)
66.33



Open Mission Map in Tentative Plan

Verify Terrain Analysis

Recommend Changes

Send Recommendations to FL

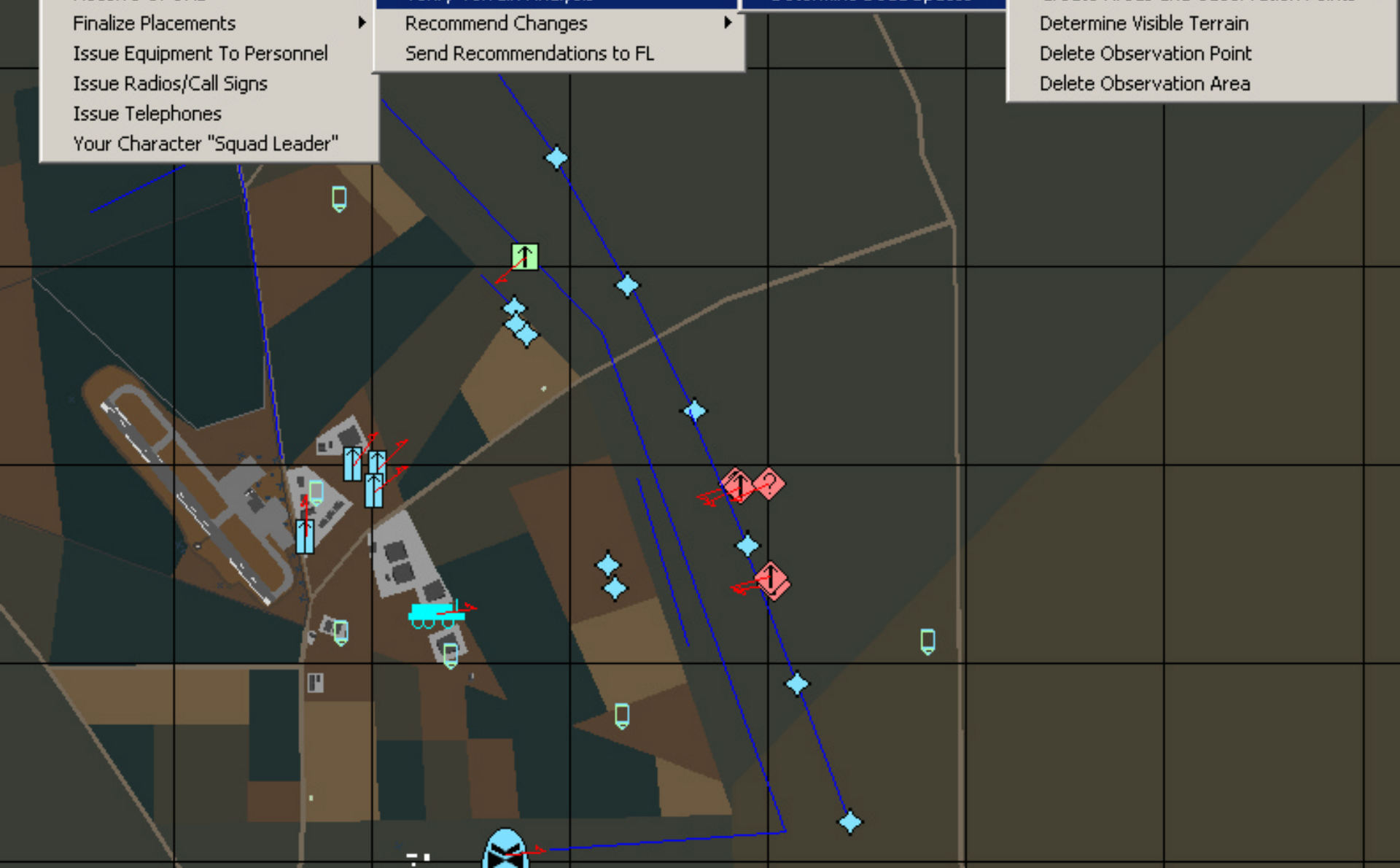
Determine Dead Spaces

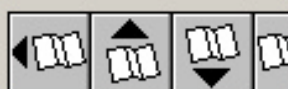
Create Areas and Observation Points

Determine Visible Terrain

Delete Observation Point

Delete Observation Area





- Recieve Warning Order
- Receive Tentative Plan
- Reconnoiter
- Receive OPORD
- Finalize Placements**
- Issue Equipment To Personnel
- Issue Radios/Call Signs
- Issue Telephones
- Your Character "Squad Leader"

Zone MGRS Coordinates Altitude (m)

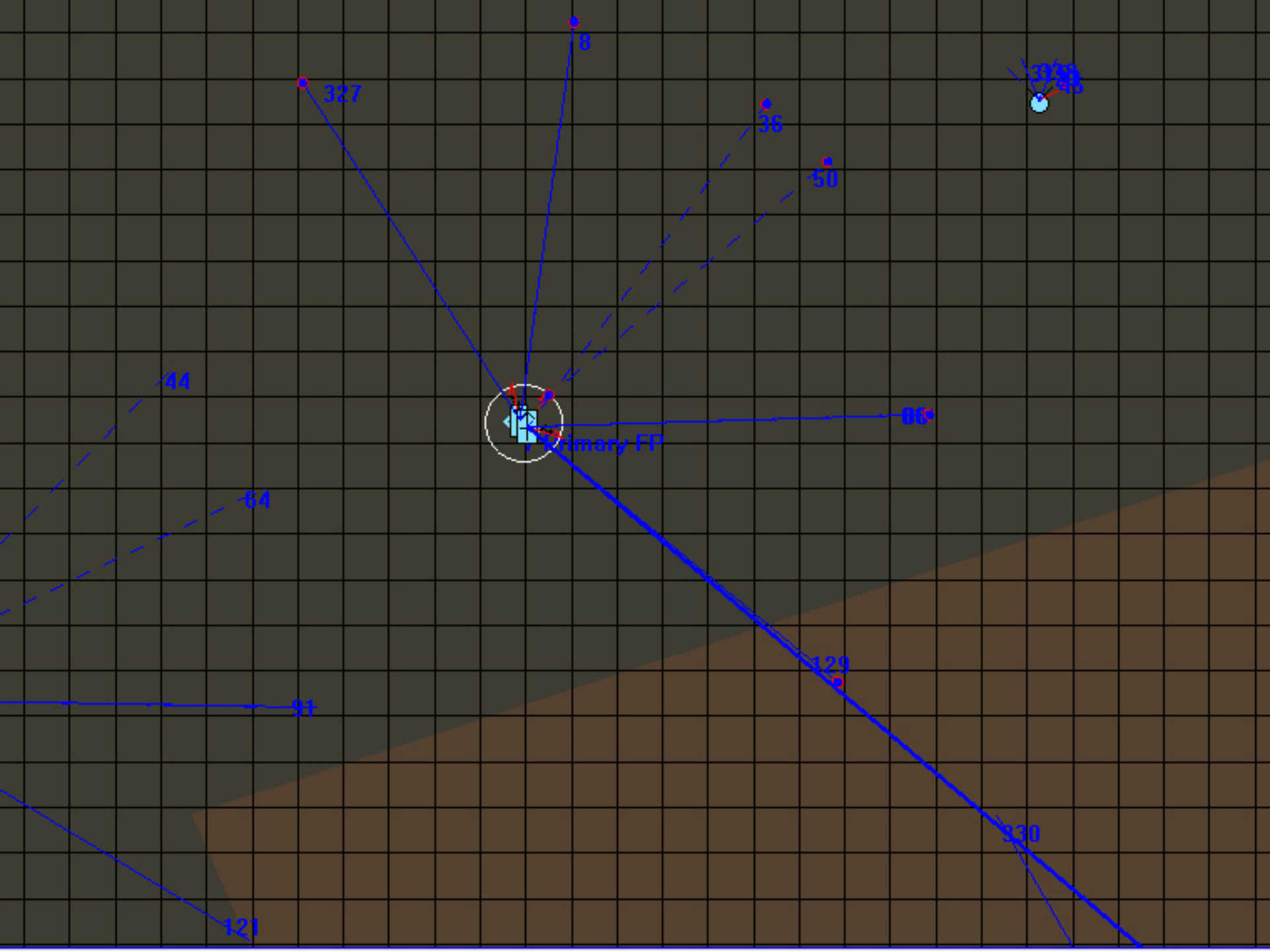
10S FA4565483253 88.34

- Reposition Tentative Placements
- Reorient Placements
- Set FP fields of fire
- Add Placements**
- Place Overlay Symbols
- Create CBR Area
- Create Waypoint
- Create Phase Line
- Create Route
- Create Area
- Create Obstacle
- Save Recommended Changes

- Personnel
- Base Assets
- Entry Control Points
- SF Facilities
- SF Vehicles
- Fighting Positions**
- Barriers
- TASS Sensor
- Mine
- Other
- First Responders

- Primary FP**
- Alternate FP
- Supplementary FP
- Elevated FP
- Vehicle FP
- LP/OP
- Observation Tower





**Settings**

Unit Display Settings

Map Display

Overlays

Fields Of Fire

☐ Primary☐ Secondary☐ Headings

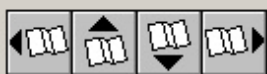
Misc

☒ Effective Range☐ Final Protective Line☒ Overlay Symbols

OK

Cancel

P5 HMMWV Up Armor w M60



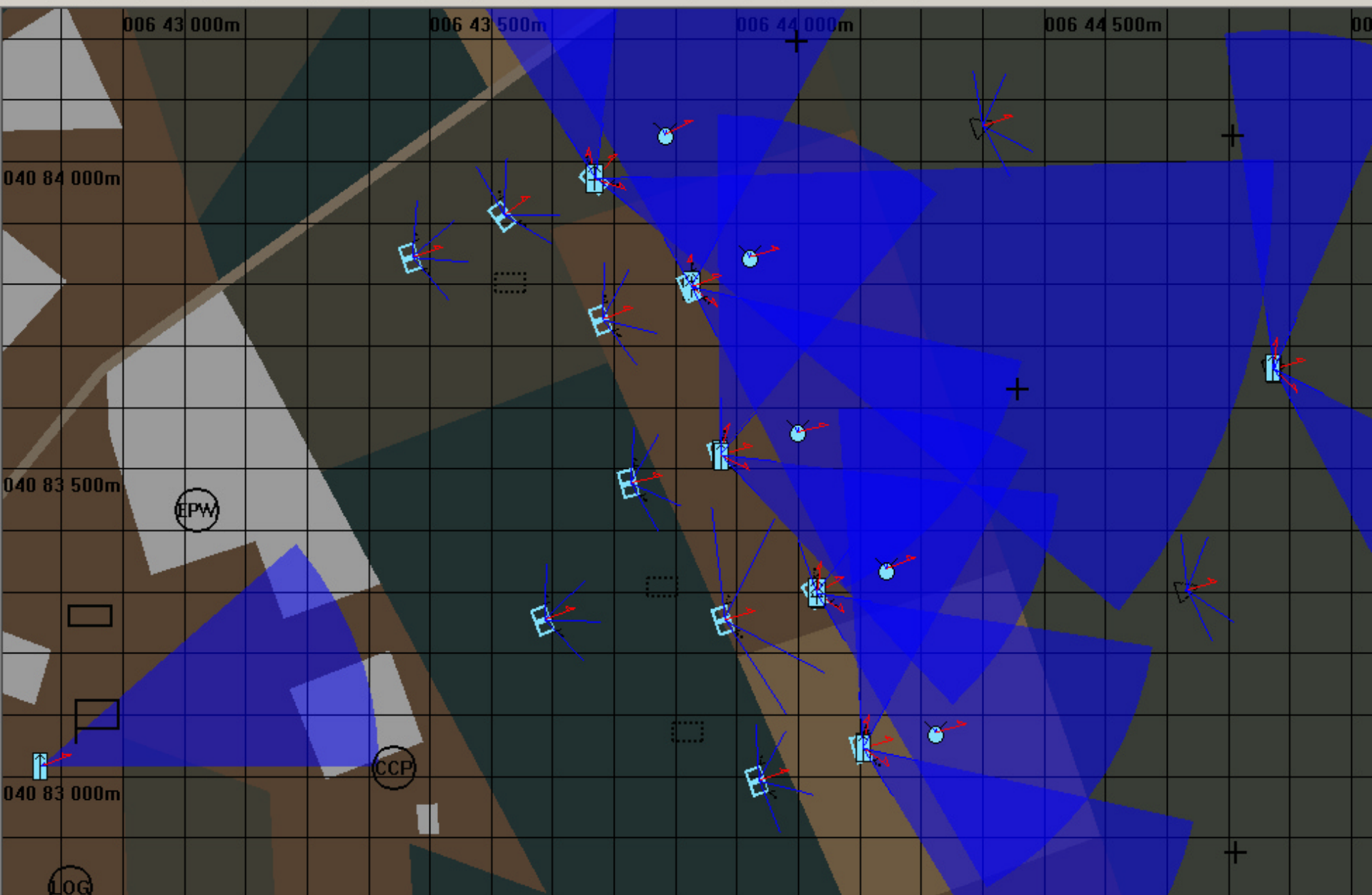
Zone MGRS Coordinates

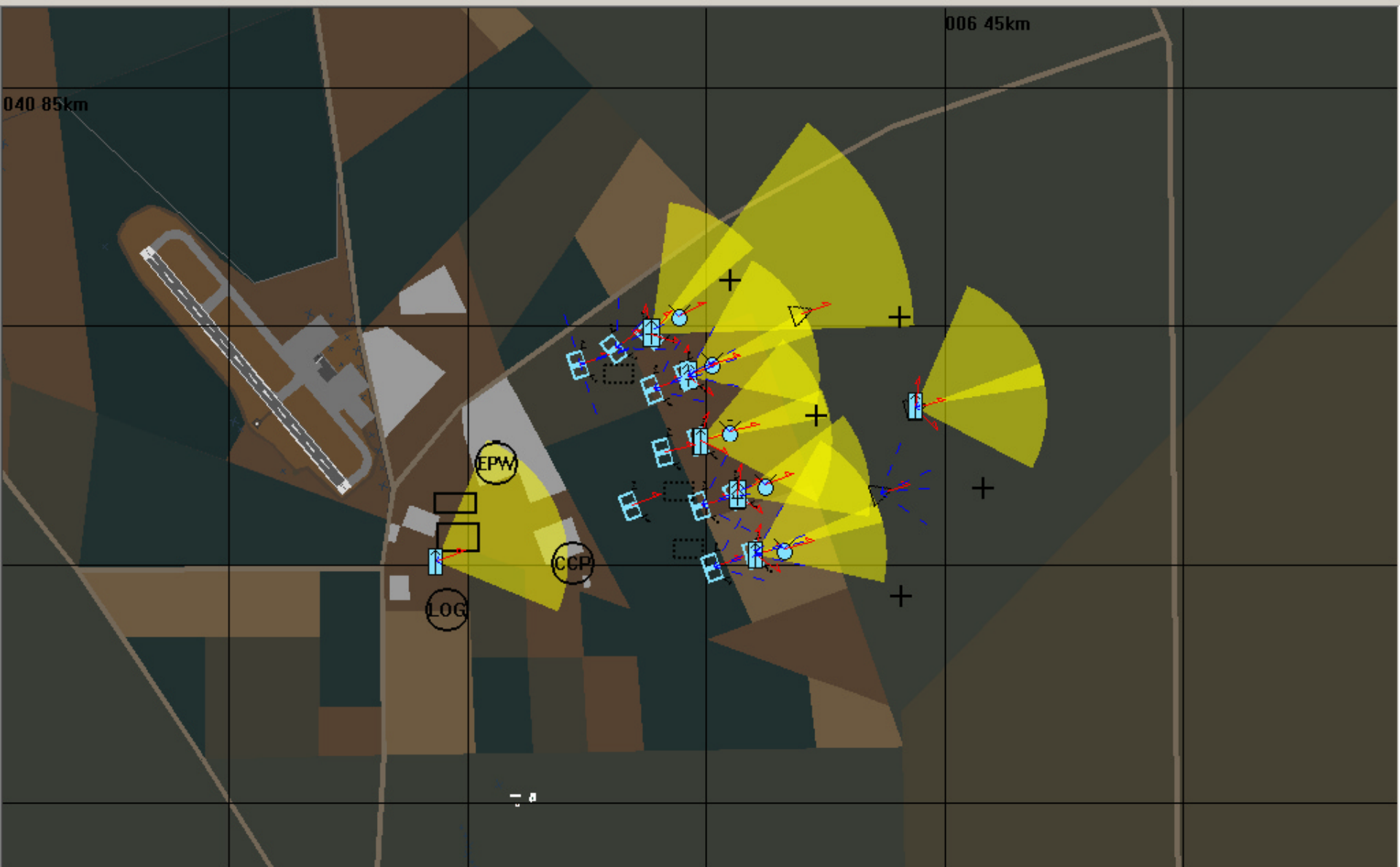
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FA4330582508

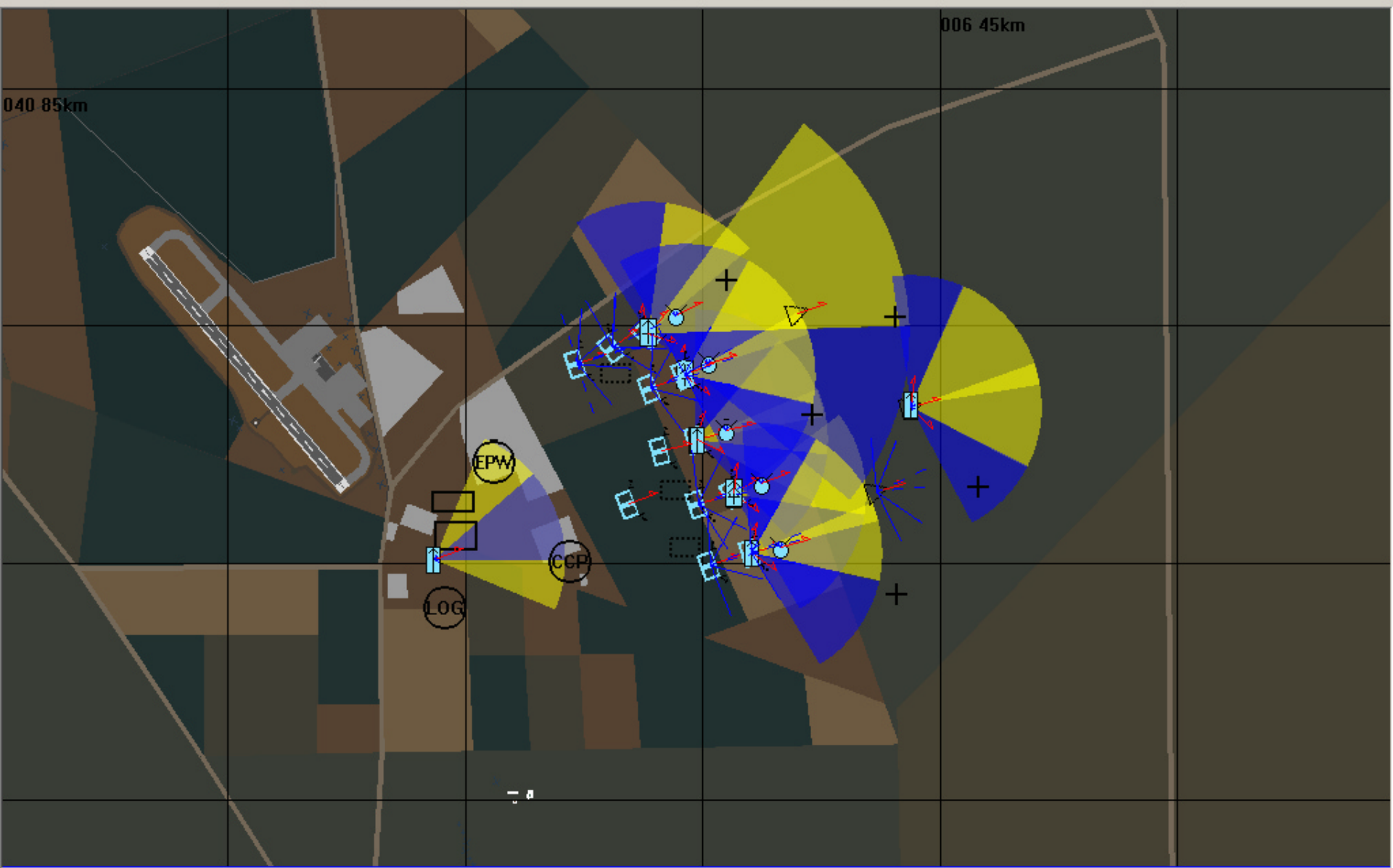
Altitude (m)

76.2





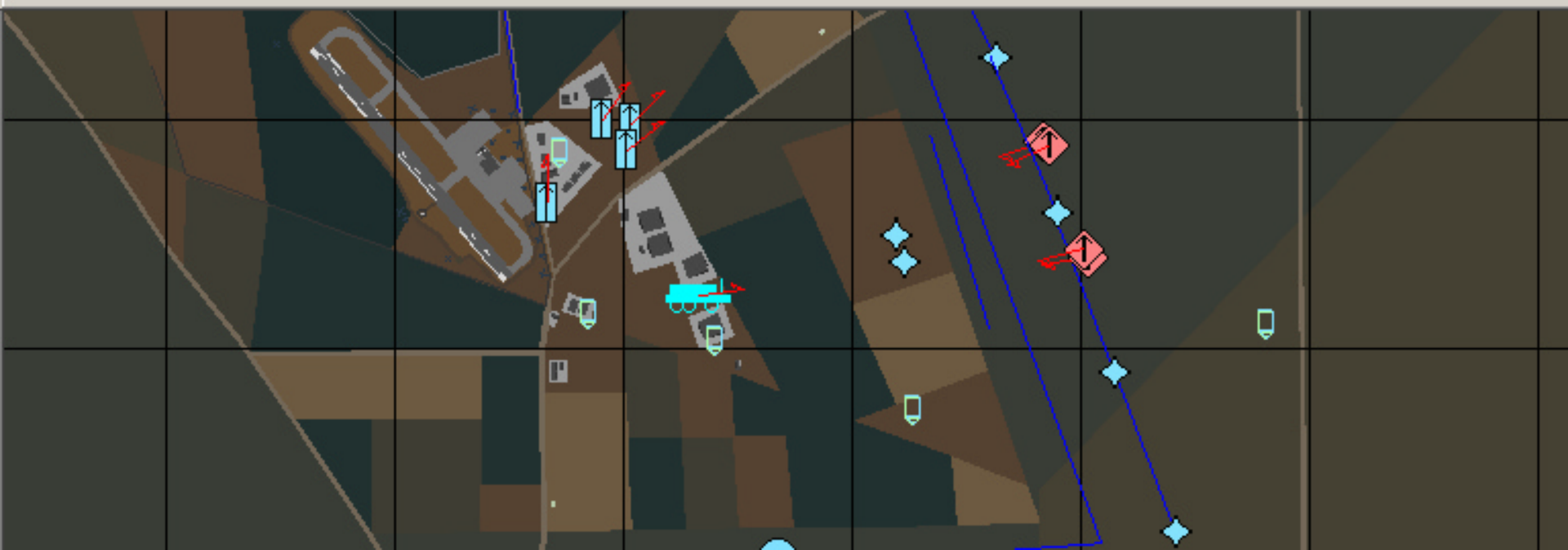
Zone: 10S
 MGRS Coordinates: FA4330582508
 Altitude (m): 76.2



Radio Channels

Apply Close Cancel

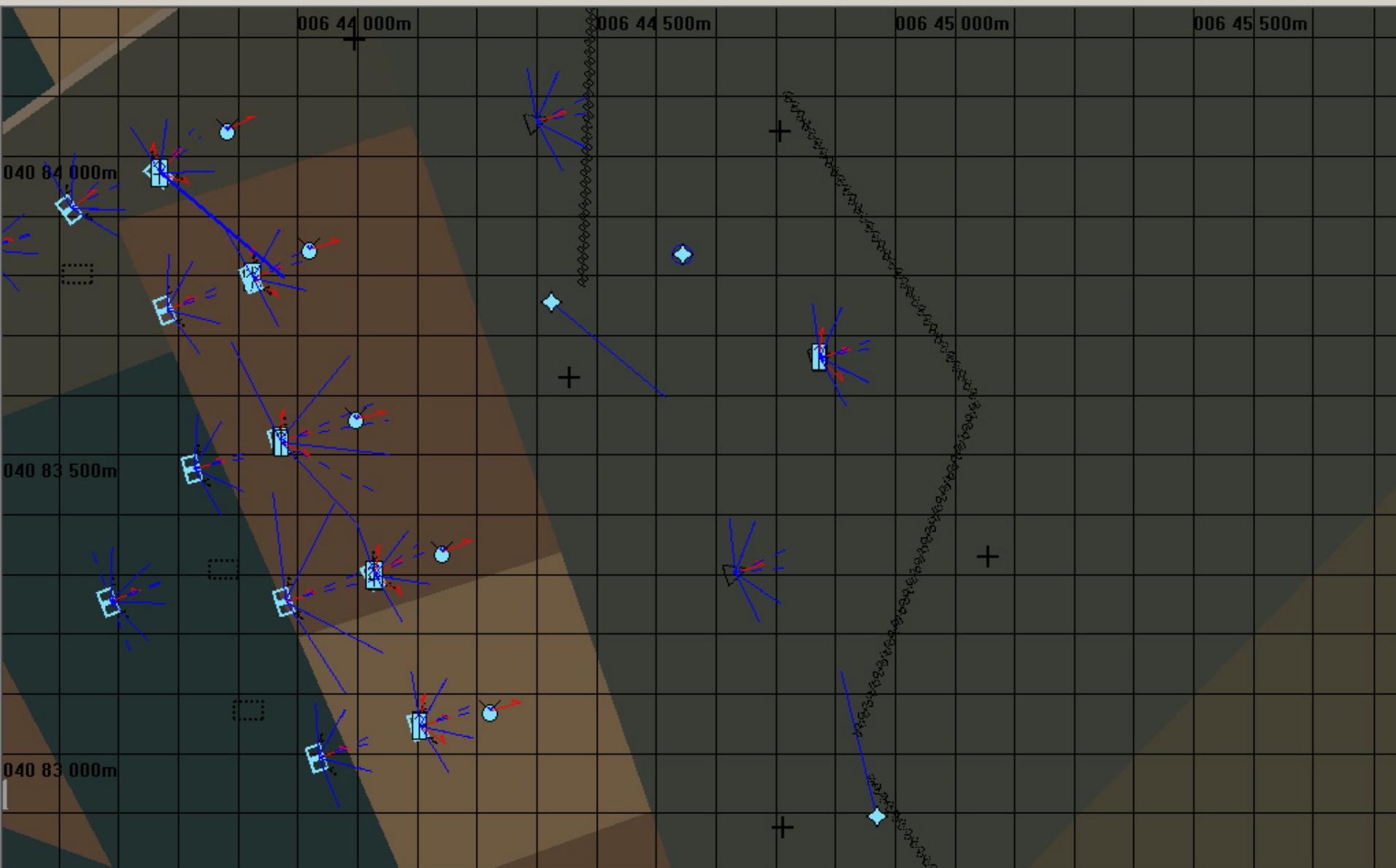
PERSONNEL	CALL SIGNS	Radio	RECEIVE CHANNELS														TRANSMIT						
			01	02	03	04	05	06	07	08	09	10	11	12	13	14	01	02	03	04	05	06	07
18 Rifelman SAW w/PW	Eagle Defender	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Flight Leader*	Aggie Defender	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16 Squad Leader w/PW	Response 1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 M-9 Only	Gate 1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hvy Weapons 50 cal w/PW	Gate Linebacker	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17 Rifleman w/PW	Eagle Defender	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24 Uav	Eagle Defender	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 M-9 Only	Eagle Defender	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15 HMMWV Up Armor w M60	Response 2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total	N/A	5	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0



Navigation icons: Previous, Next, Home, End, Search, etc.

Zone: 10S MGRS Coordinates: FA4545984049 Altitude (m): 82.35

Navigation icons: Previous, Play, Next

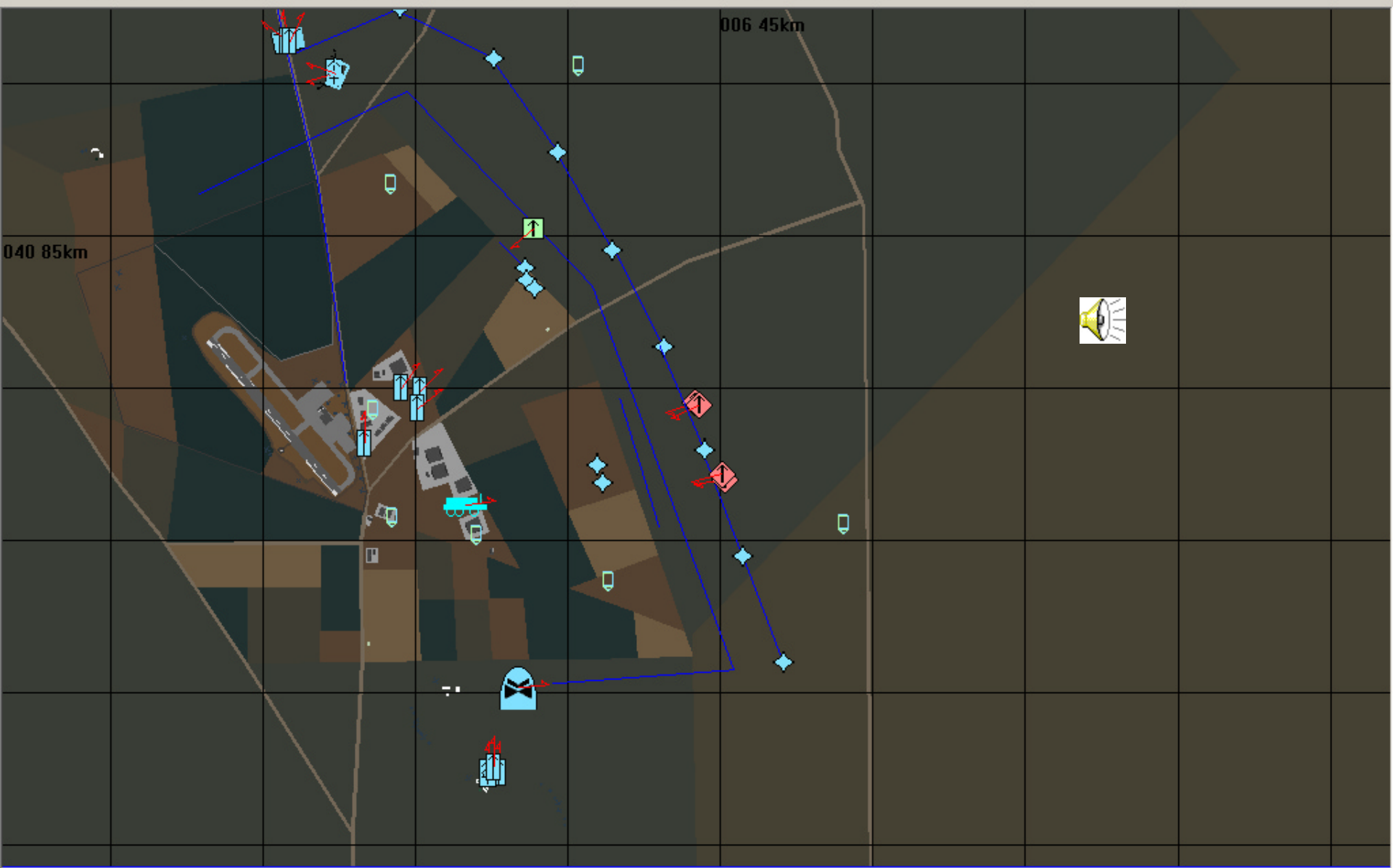


NEXT PREV SEL

Zone
10S

MGRS Coordinates
FA4710280529

Altitude (m)
112.4





Create Navigation / Control Aids ▸

Issue ROEs

Control Troop Movement ▸

Fire Control Orders ▸

Create / Edit Unit Plan

View Unit Plan

Retask ▸

Skip Task

Abandon Plan

Set ▸

Suspected Location ▸

Generate Sitrep From Friendly

Coordinates

4384166

Altitude (m)

92.84



Retask ▸

Set ▸

Skip Task

View Unit Plan

Edit Unit Plan

Delete

Move to Point

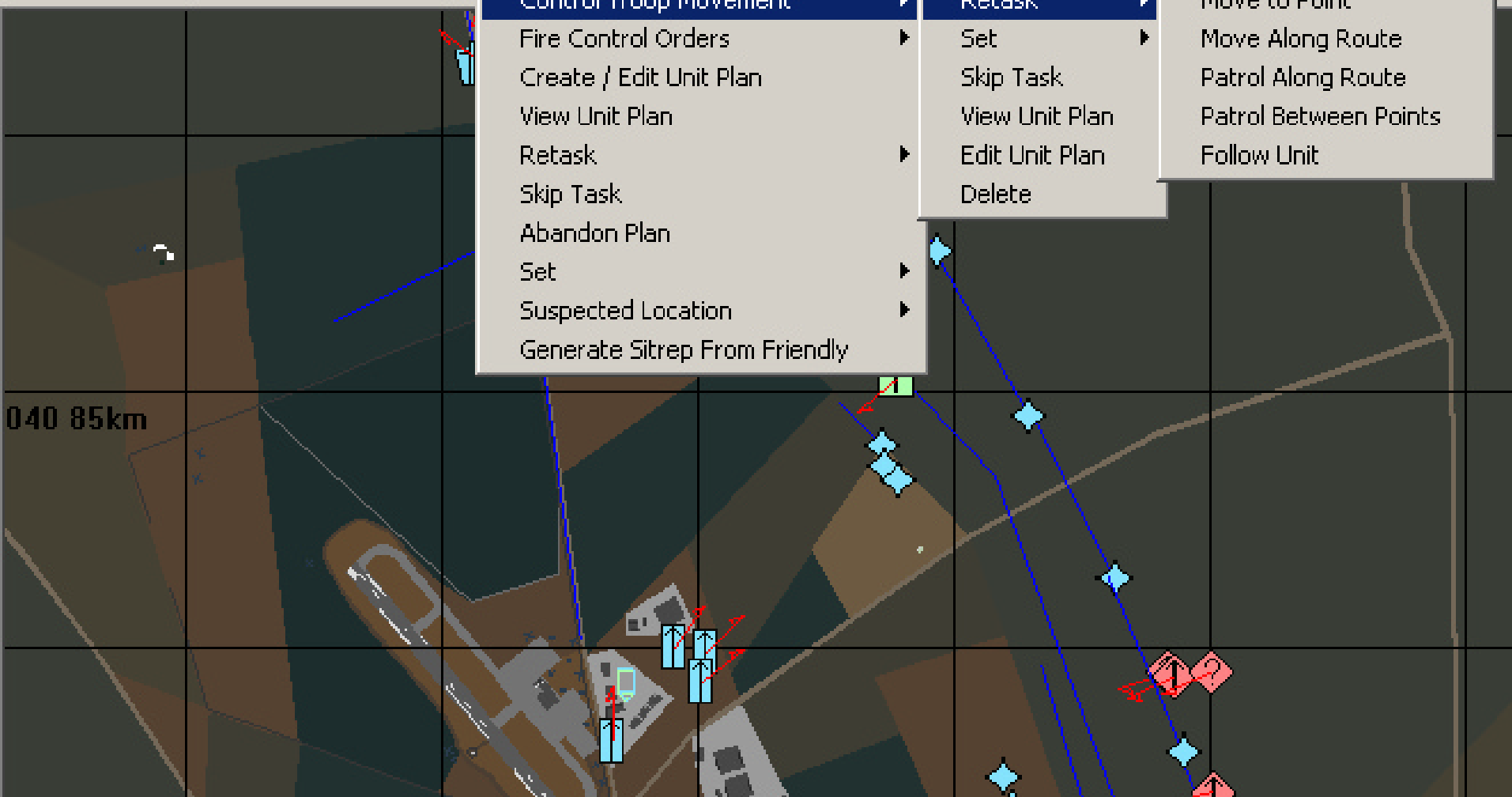
Move Along Route

Patrol Along Route

Patrol Between Points

Follow Unit

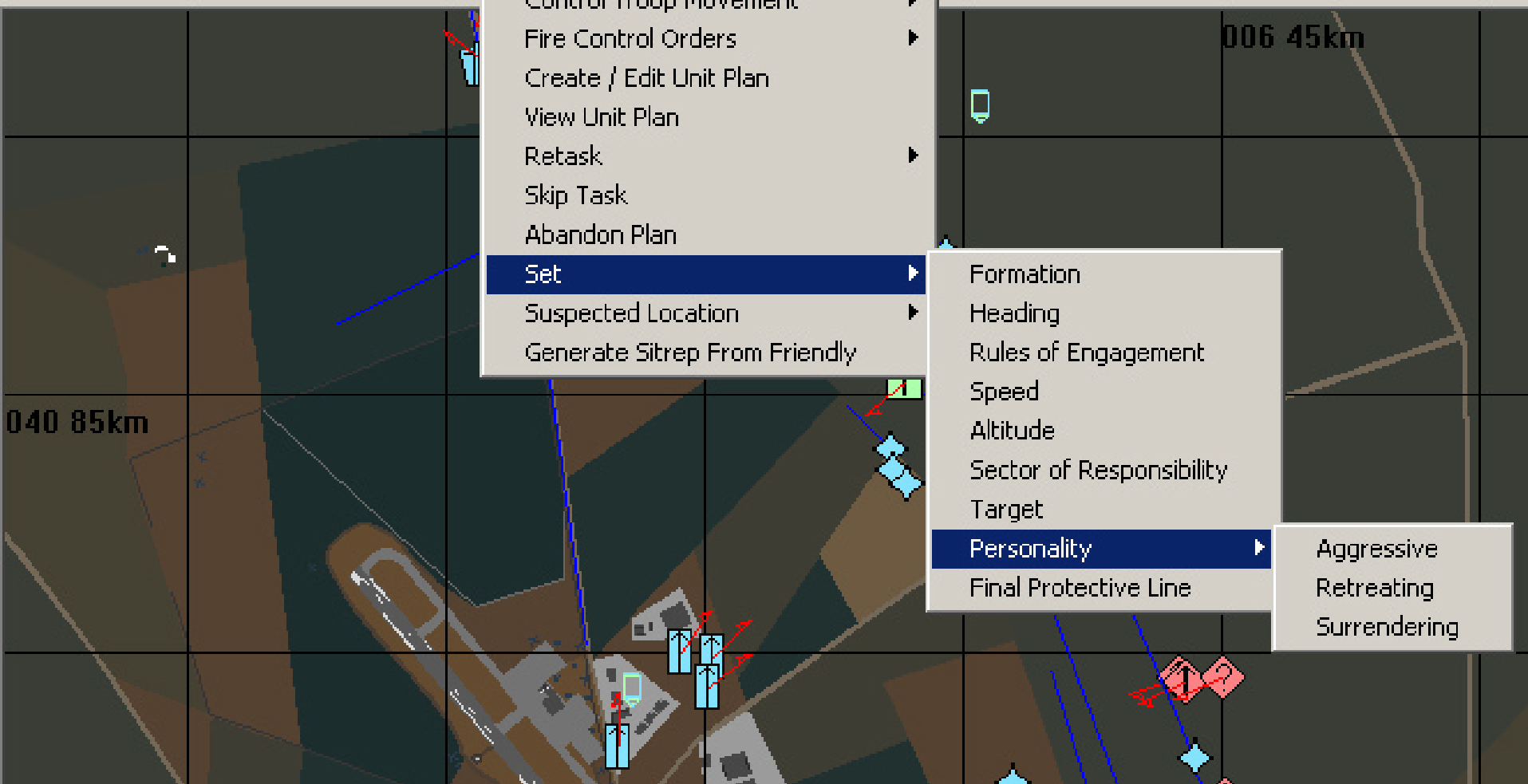
040 85km





- Create Navigation / Control Aids ▶
- Issue ROEs
- Control Troop Movement ▶
- Fire Control Orders ▶
- Create / Edit Unit Plan
- View Unit Plan
- Retask ▶
- Skip Task
- Abandon Plan
- Set** ▶
- Suspected Location ▶
- Generate Sitrep From Friendly

Coordinates	Altitude (m)	Navigation Controls
4384166	92.84	◀◀ ▶▶



- Formation
- Heading
- Rules of Engagement
- Speed
- Altitude
- Sector of Responsibility
- Target

Personality ▶

Final Protective Line

- Aggressive
- Retreating
- Surrendering



Sitrep



Sitrep Text (300 Char Max.)

We have found what appears to be unexploded ordnance.

Send



Close

Preset Sitreps

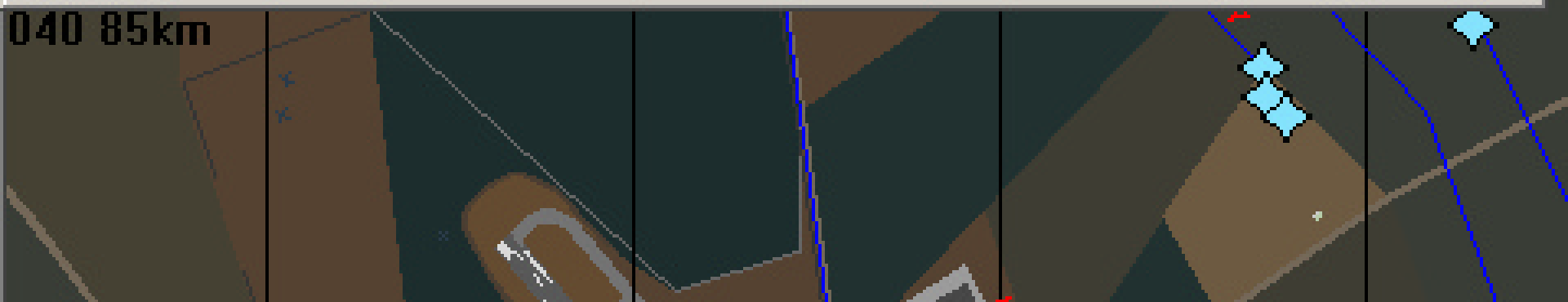
1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20

Store

Cancel

Select or create desired sitreps

040 85km

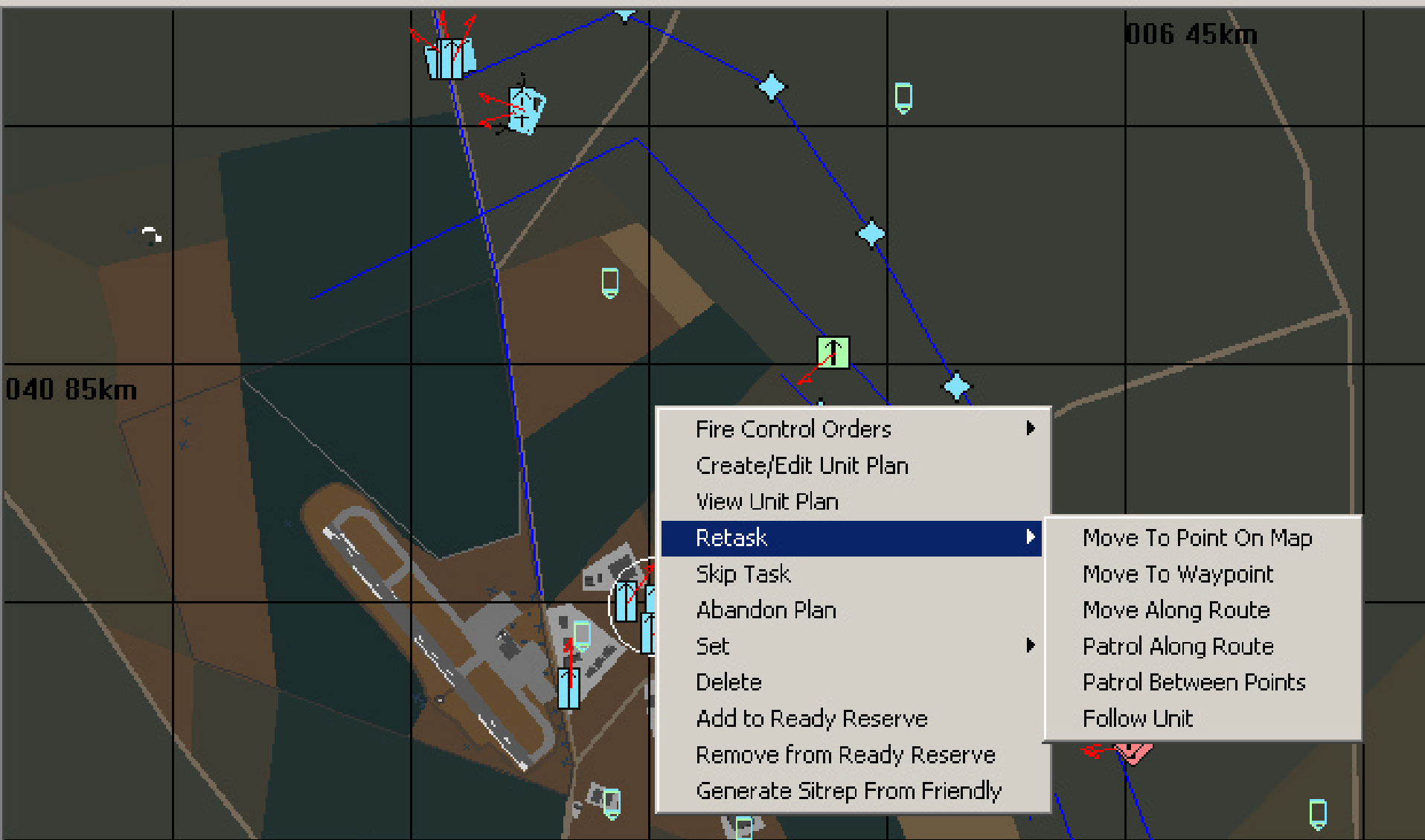




Zone
10S

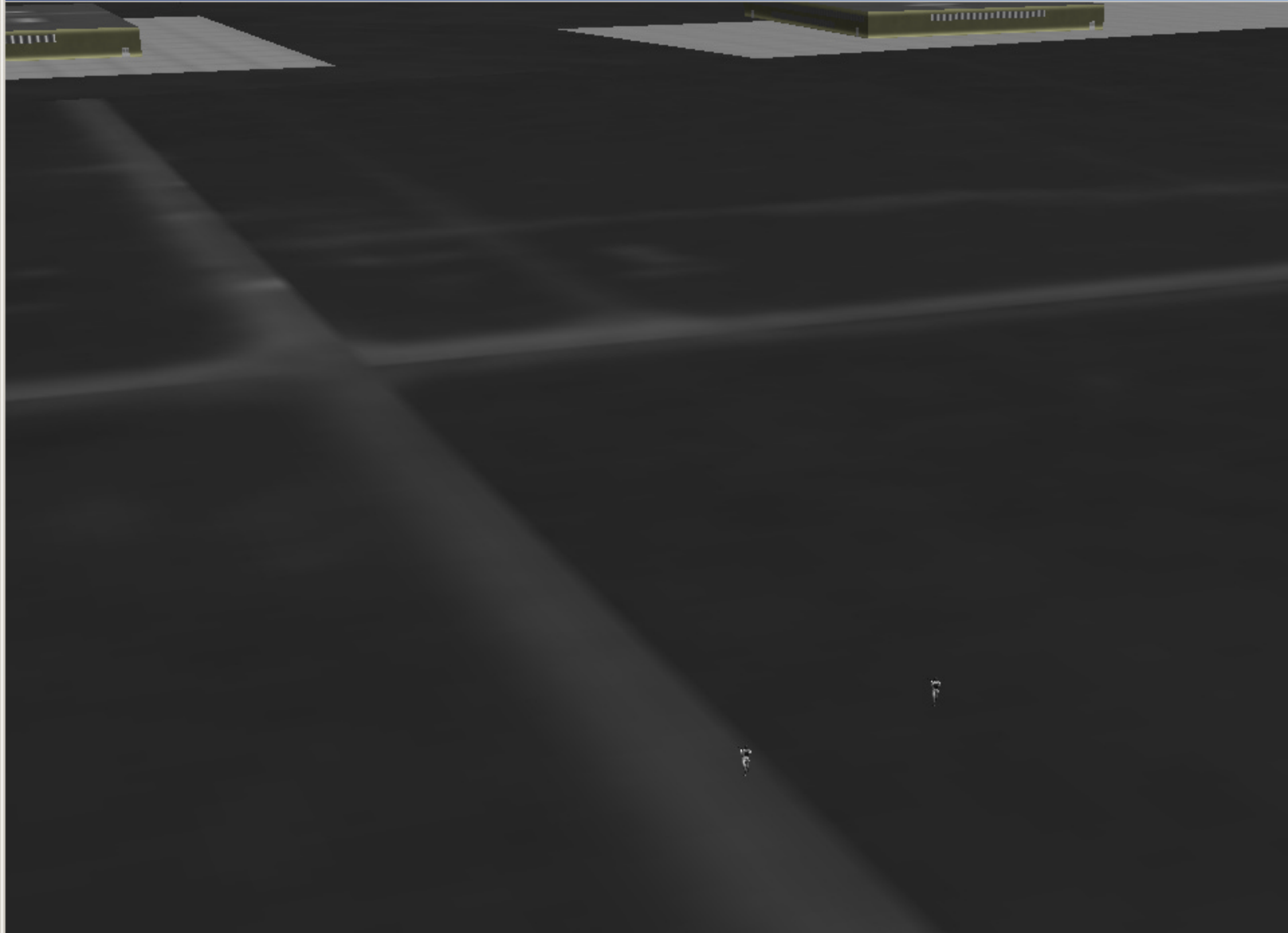
MGRS Coordinates
FA4303783988

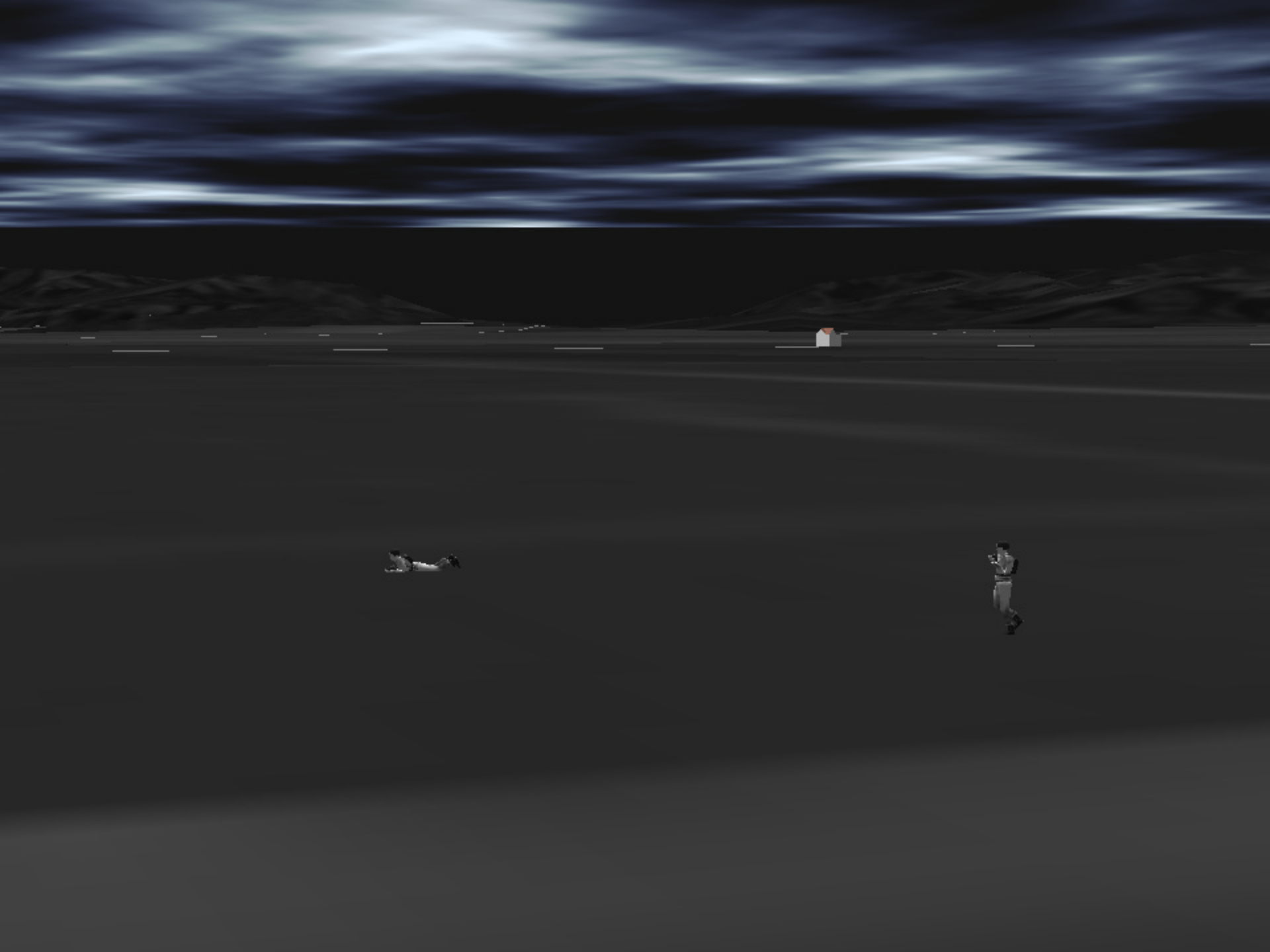
Altitude (m)
68.12











SecForDMT Emphasis

- Work as a team
- Decision-making process
 - Deliberative (Mission Planning)
 - Reactive (Mission Execution)
- Communications per SOI
- Implementation of ROEs
- Simulate outcome of engagements
 - Tactical and Political

Initial Evaluation

- Evaluated by 14 Instructors at SFA
 - SSgt - SMSgt, 2Lt - Capt.
- Very Positive Instructor Response
 - Effective Teaching Tool, Awesome
 - Ideal for demonstrating ABD rules
 - Loved PVD with symbols from range cards
 - Loved SITREPs (actually more than done)
 - Has great potential

Evaluation Results (Cont'd)

- Some Modifications Needed
 - Implement Binoculars
 - SITREPs per FMs more detailed than actual
 - Would like to duplicate overlays
 - Need more direct fire control, FPL
 - Collateral Damage
 - Patrols & Convoys
- Mixed Review on Stealth
 - Sexy and fun but limited training value

Conclusion

- Increased need for Home Base Force Protection Training
 - Increased criticality of Flight Line Defense
 - Reduced training opportunities at Regional Training Centers
- Instructor evaluations
 - SecForDMT technology may be a solution for significant portion of problem
- Significant research still to be done

End of Presentation

- Questions?
- Comments?
- bruce@mrassociates.com

